AMENDMENTS TO THE SPECIFICATION AND ABSTRACT

Please amend the following paragraphs in the Specification:

Page 1, ¶ 3

The construction of the suspension system is often a compromise between a soft suspension for providing a soft ride for passenger comfort over rough roads and the like and a stiff suspension, which enhances the safety and stability of the vehicle. A stiffer suspension transfers more shock of the suspension to the chassis and offers less comfort to passengers but increases the stability of the vehicle. When the typical vehicle enters a turn the resulting centrifugal forces acting on the vehicle ~~tends~~ tend to roll the vehicle body about its roll center relative to the underlying suspension system. This centrifugal force also tends to displace the body laterally, outwardly tending to cause the vehicle to pivot about the contact of its outer wheels with the road surface.

Page 2, ¶ 2

As a ~~body~~ vehicle moves through a turn the body tends to roll and shift the weight onto the outer wheels and springs while simultaneously unloading the inner suspension springs thereby reducing the cornering traction of the vehicle. The body also tilts or rolls toward the outside of the curve shifting the mass of the vehicle toward the outside of the curve. The rolling of the body about its roll center when negotiating a curve is discomforting to the operator and passengers. Stiffer suspensions which tend to reduce this tendency to roll also ~~subjects~~ subject the passengers and operator to the jolting and jarring of rough roads.

Page 2, ¶ 4

Another approach has been to provide the vehicle with a linkage system powered by electric motors to selectively tilt the body inwardly during cornering. Such a system is disclosed in U.S. Patent No. 2,152,938.

Page 2, ¶ 5

Others have attempted to overcome this problem by designing the suspension system so that the roll center of the vehicle is disposed above its center of ~~its~~ gravity. Most of these systems are complicated and expensive. These systems also have other serious drawbacks.

Page 3, ¶ 2

More specifically, one embodiment of the invention comprises an anti roll suspension for a vehicle chassis having at least two laterally spaced wheels, wherein the suspension comprises an axle assembly for rotatably mounting each of a pair of laterally spaced wheels, a spring assembly supporting the chassis on each of the axle assemblies, a moveable arm connected between the spring and the chassis, and an anti roll linkage connected between said chassis and the moveable arm of the axles of the suspension system being responsive to a lateral force on said chassis, and structured to translate lateral force on the chassis to a vertical force on the down force side of the chassis so that the anti roll linkage simultaneously ~~lift~~ lifts the down force side of the vehicle and lowers the up force side of the vehicle. However, the claims alone, not the preceding summary, define the invention.

Page 3, ¶ 4

FIG. 1 is a front elevation view of a vehicle shown in phantom showing the front of one embodiment of the invention showing the vehicle body in a static condition;

Page 3, ¶ 7

FIG. 4 is an elevation view of the rear of the vehicle of Fig. 1 and the embodiment of the invention showing the vehicle body in a static condition;

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Page 3, ¶ 9

FIG. 6 is a view like Fig. 4 of the invention showing the condition of the rear suspension with the vehicle in a turn; ~~and~~

Page 4, ¶ 1

FIG. 7 is a view like Fig. 1 showing an alternate embodiment of the rear suspension in a static condition~~.~~; and

Page 4, ¶ 2

FIG. 8 is a view like ~~FIG.~~ Fig. 6 of the embodiment of Fig. 7 showing the condition of the rear suspension with the vehicle in a turn.

Page 5, ¶ 1

The vehicle chassis 12 is supported on each of the axle assemblies by a McPherson strut including a coil compression spring 18 and a hydraulic damping cylinder assembly 20. The strut is directly secured at the lower end to axle 14 and at the upper end to an upper ~~an~~ arm 22 at a pivot pin 24. Upper arm 22 is pivotally connected by a suitable pivot pin or the like at 26 directly to the chassis or body of a vehicle. A lower control arm assembly or unit 28 is connected at an outer end at pivot 30 to wheel axle assembly 14 and at an inner end by floating pin 32 to a bell crank type lever 34 mounted at a pivot 36 to the vehicle chassis.

Page 5, ¶ 2

Bell crank 34 has a short arm 38 and a long arm 40. Lower control arm 28 is pivotally connected to the short arm 38 of bell crank type lever 34. A compensating link 42 is connected at a lower end at 44 to the arm 40 of bell crank 34 and at the upper end at 46 to lever or upper control arm 22. This link translates rotary movement of bell crank 34 to a movement of lever 22 to compress or relax spring 18. Bell crank 34 rotates in response to any lateral movement of the vehicle chassis toward or away from the wheels.

The opposite side of the vehicle chassis is supported on an identical suspension with all components identified by the same reference numerals. A connecting link or bar 48 is pivotally connected at 32 to each short or lower arm 38 of each bell crank of each wheel suspension assembly. This bar or link ties compensating linkage of both sides of the suspension system together to work together in countering any tendency of the chassis to roll when cornering. In the instant system the link serves to translate a movement of the chassis and the moveable arm of the axles of the suspension system to a vertical force on the down force side of the chassis so that the anti roll linkage simultaneously ~~lift~~ lifts the down force side of the vehicle and lower the up force side of the vehicle.

Page 5, ¶ 4

Referring to FIG. 3 it will be seen that the suspension system wheel assemblies are tied together by a tie link or bar 48 and will function together through the compensating linkage when the vehicle is in a turn. As shown in FIG. 3 the action of the suspension system of the present invention in a turn is illustrated. The vehicle, shown in a left turn, remains substantially level as the suspension system functions through the compensating linkage to maintain the vehicle chassis level as the vehicle passes through a turn. As shown the front of a vehicle in a severe left turn is illustrated with the chassis shifted to the left relative to the axle and wheels of the vehicle. This movement of the vehicle chassis actuates the linkage with the movement translated by the linkage to action on the springs and a resultant maintenance of the chassis in a level condition. As will be appreciated the center of mass of the vehicle body or chassis will be above the center of axles 14 and in a severe left-hand turn as illustrated will shift to the left and will also tend to roll counter-clockwise about ~~it's~~ its center of rotation. The center of rotation may not be located at the center of mass of the chassis but it most likely will be below the center of mass.

Page 6, ¶ 2

The movement of the vehicle into a turn as illustrated will result in the body or chassis shifting to the right relative to the axle of the vehicle thereby imposing a force F1

to the left on pivot connection 36 of the levers 34. Simultaneously a force F2 will be imposed to the right by the ~~link48~~ link 48 and arms 28 from the axle on the pivot 32 of the small arm of the lever 34. These forces will impose a counter-clockwise rotation or pivoting of the lever 34 about its pivot point or joint 36 thereby imposing a downward force F3 on the left-hand spring as viewed in FIG. 3, and an upward force on the pivot pin 24 of the right-hand lever 22. This action will simultaneously load the compression spring 18 on the right counteracting the tendency of the body of the vehicle to roll to the left.

Page 8, ¶ 3

The vehicle chassis 62 is supported on each *of* the axle assemblies by a strut assembly including a coil compression spring 68 and a hydraulic damping cylinder assembly 70. The axles are moveably connected to the chassis by an upper control arm 72 and a lower control arm 74. This is typically called a double wishbone suspension. The strut is directly secured at the lower end to lower control arm 74 and at the upper end to an upper ~~an~~ arm 80 at a pivot pin 102. Upper control arm 72 is pivotally connected at an outer end by a suitable pivot pin or the like at 76 to the axle 64 and at an inner end at pivot 78 to a lever 80. Lever 80 is pivotally connected at 82 directly to the chassis or body of the vehicle and at an outer end of a long arm at 84 to the top of spring 68. Upper lever 80 is a bell crank and is pivotally connected between its arms by a suitable pivot pin or the like at 82 directly the chassis or body of vehicle 62.

Page 8, ¶ 4

Lower control arm assembly or unit 74 is connected at an outer end at pivot 86 to wheel axle assembly 64 and at an inner end by floating pin 88 to a bell crank type lever 90 mounted at a pivot 92 to the vehicle chassis. Bell crank 90 has a downward extending short arm 94 and an outward extending long arm 96. Lower control arm 74 is pivotally connected to the short arm 94 of bell crank type lever 96. A compensating link 98 is connected at a lower end at 100 to the arm 96 of bell crank 90 and at the upper end at 102 to upper lever or arm 80. This link translates rotary movement of bell crank 90 to a

movement of lever 80 to compress or relax spring 68. Bell crank 90 rotates in response to any lateral movement of the vehicle chassis relative to toward or away from the wheels. The opposite side of the vehicle chassis is supported on an identical suspension with all components identified by the same reference numerals. A connecting link or bar 104 is pivotally connected at 88 to each short or lower arm 94 of each bell crank of each wheel suspension assembly. This bar or link ties compensating linkage of both sides of the suspension system together to work together in countering any tendency of the chassis to roll when cornering. In this system the compensating link serves to translate a movement of the chassis and the moveable arm of the axles or the suspension system to a vertical force on the down force side of the chassis so that the anti roll linkage simultaneously ~~lift~~ lifts the down force side of the vehicle and lower the up force side of the vehicle.

Page 9, ¶ 2

As shown in FIG. 8 the action of the suspension system of the present invention in a turn is illustrated and functions as in prior embodiments. The vehicle, shown in a left turn, remains substantially level as the suspension system functions through the compensating linkage to maintain the vehicle chassis level as the vehicle passes through a turn. As shown the rear of a vehicle in a severe left turn is illustrated with the chassis shifted to the right relative to the axle and wheels of the vehicle. This movement of the vehicle chassis actuates the linkage with the movement of the chassis translated by the linkage to action on the springs and a resultant maintenance of the chassis in a level condition. As previously discussed the center of mass of the vehicle body or chassis will be above the center of the axles 64 and in a severe left hand turn as illustrated will shift to the right and will also tend to roll clockwise about its center of rotation. The center of rotation most likely will be below the center of mass.

Page 10, ¶ 2

In the instant system the link serves to translate a movement of the chassis and the moveable arm of the axles of the suspension system to a vertical force on the down force

side of the chassis so that the anti roll linkage simultaneously ~~lift~~ lifts the down force side of the chassis and lowers the up force side of the chassis.

Please make the following amendments to the Abstract:

An antiroll suspension for a vehicle chassis having laterally spaced wheels, the suspension comprises an axle assembly for rotatably mounting each of a pair of laterally spaced wheels, a spring assembly supporting the chassis on each of the axle assemblies, a moveable arm connected between the spring and the chassis, and an anti roll linkage connected between said chassis and the moveable arm of the axles of the suspension system being responsive to a lateral force on said chassis, and structured to translate lateral force on the chassis to a vertical force on the down force side of the chassis so that the anti roll linkage simultaneously ~~lift~~ lifts the down force side of the vehicle and ~~lower~~ lowers the up force side of the vehicle.